



4.2.11 Pima County

Geography

Pima County is located in southern Arizona and encompasses 9,184 square miles. Varying in elevation from desert valleys at roughly 1,200 feet to the 9,185 foot peak of Mount Lemmon, the County is home to diverse plant and animal communities. Numerous mountain ranges ring the Tucson basin, including the Santa Catalina, Rincon, Empire, Santa Rita, Sierrita and Tucson Mountains. The climate is typical of the Sonoran desert with warm summers and mild winters.

Population

Pima County contains a relatively large portion of Arizona's overall population (16.3%) when compared to many other counties in Arizona. Despite this proportion, and the presence of Arizona's second-largest city—Tucson, the County has experienced a rate of population growth that is somewhat less than that experienced statewide. Between 2000 and 2005 Arizona's population increased 17.8% while the County's grew at a rate of only 13.5% to arrive at a total population of 957,635. In addition to Tucson other major communities in the County include: Green Valley, Oro Valley, South Tucson, Marana, and Catalina. The communities of Tucson, Marana, and Oro Valley, among others, are expected to experience substantial population gains in the approaching decades.

Pima County Population, 1990-2040							
Jurisdiction	1990	2000	2005	2010	2020	2030	2040
Pima County	666,880	843,746	957,635	1,070,723	1,271,912	1,442,420	1,585,983
Marana	2,187	13,556	26,725	46,078	76,553	99,328	117,900
Oro Valley	6,670	29,700	39,400	44,190	59,388	68,914	76,123
Pascua Yaqui Reservation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Tucson	5,093	5,490	5,630	6,474	7,151	7,500	7,500
Tohono O'Odham Reservation	18,730	10,787	N/A	N/A	N/A	N/A	N/A
Tucson	405,390	486,699	529,770	540,307	589,899	631,889	663,542
Note: Figures for 1990, 2000, 2005 from Arizona Dept. of Commerce. Figures for 2010-2040 from AZ DES (projections date from 1997).							
Source: Arizona Department of Commerce, May 2003; Arizona Department of Economic Security, February 1997.							

Economy & Labor Force

A majority of the County's 435,462 workers in the civilian labor force are employed in the Services sector followed by Government, Construction, Manufacturing, Trade and Transportation. The labor force is reflective of the influence of tourism, academia and the retirement population in the Tucson metropolitan area. In 2005 the County's unemployment rate was 4.6%, compared to the statewide average of 4.6%.

Historic Hazard Events

During the development of the original State of Arizona All-Hazard Mitigation Plan, a list of historic hazard events was compiled. Most counties researched local records and governmental databases to update and add records of recent hazards to the state compiled list for use in their plans. Additional hazard records were researched using the same criteria, with the exception that all damages greater than \$1 were included. Therefore, due to the variety of data sources and criteria, it should be kept in mind that the numbers reported reflect the availability of such data from those sources and the numbers are expected to under-predict the losses actually sustained over the past 30 to 40 years. A more thorough search for historic data in future planning efforts is mentioned in the county plans and encouraged by ADEM.

It is our hope that this data coupled with other risk assessment information will prove to be instrumental in assisting the County and State in future planning and mitigation efforts. We believe this can happen by this data accurately indicating which hazards we are most susceptible to; how damaging these hazards can be to us; and the damage costs or costs avoided through future mitigation projects.



Historic Record of Disaster Events in Pima County					
Event Type	Total				
	Declared	Undeclared	Fatalities	Injuries	Loss \$
Drought	12	57	0	0	300,000,000
Dust/Sand Storms	0	2	0	26	98,000
Earthquake	0	2	0	0	0
Flooding/Flash Flooding	9	24	56	119	920,980,000
Hazardous Materials Incidents	4	11	0	2	0
Thunderstorms/High Winds	4	37	0	0	0
Tornadoes/Dust Devils	0	8	3	51	3,800,000
Tropical Storms/Hurricane	3	8	37	975	750,800,000
Wildfire	18	89	0	0	66,200,000
Winter Storms	0	1	2	10	0
Note: Disasters above met 1 or more of the following criteria: Reported damages of \$50,000 or more, at least 1 injury and/or fatality, or Historical Significance. All information is derived from the best data available at the time.					
Source: Pima County Multi-Hazard Mitigation Plan, FEMA Approved January 2007.					

Vulnerability

The County includes a relatively high number but a balanced proportion of population that is potentially vulnerable to hazards. Appropriately, the proportion of residents falling below 18 years of age is 24.4% and the residents above the age of 65 is 14.3%. The strong history of the Tucson area justifies a housing stock that has a relatively high proportion of units that were constructed prior to 1970.

Pima County Populations Potentially Vulnerable to Hazards, 2005				
Jurisdiction	Population			
	Total	Under 18 yrs	65+ years	Below Poverty Level
Arizona	6,044,985	1,607,966	773,758	840,253
Pima County	957,635	233,663	136,942	136,942
As a % of County	100%	24.4%	14.3%	14.3
As a % of State	1.6%	14.5%	17.7%	16.3%
Source: Estimates based on US Census Bureau data, 2007. Poverty Level as defined by US Census Bureau.				

Pima County Dwelling Units Potentially Vulnerable to Hazards, 2005		
Jurisdiction	Housing Units	
	Total	Built Before 1970
Arizona	2,544,806	490,710
Pima County	407,048	105,610
Source: Estimates based on US Census Bureau. Data, 2007.		

Hazards & Mitigation Strategy

Using the results of the County's vulnerability and capability analysis and the goals and objectives, a list of actions/projects was formulated. The actions/projects were then evaluated and ranked using the STAPLEE procedure. Below are the top ranking identified hazards and their actions/projects as indicated in the County's Hazard Mitigation Plan approved by FEMA on January 26, 2007:

Drought

Action 1: Promote, where appropriate, the use of xeriscaping or desert landscaping at County facilities and projects.

Action 2: Lend technical support to those agencies tasked with conservation actions.

Flooding/Flash Flooding

Action 1: Enforce Flood & Erosion Hazard Ordinances.

Action 2: Participate in Community Rating System to reduce insurance premiums.

Thunderstorms/High Winds

Action 1: Pursue partnerships with the National Weather Service and State Universities to research the prediction of microbursts.



Action 2: Educate the public on the dangers of severe weather through various media and outreach programs.

Mitigation Strategy Progress

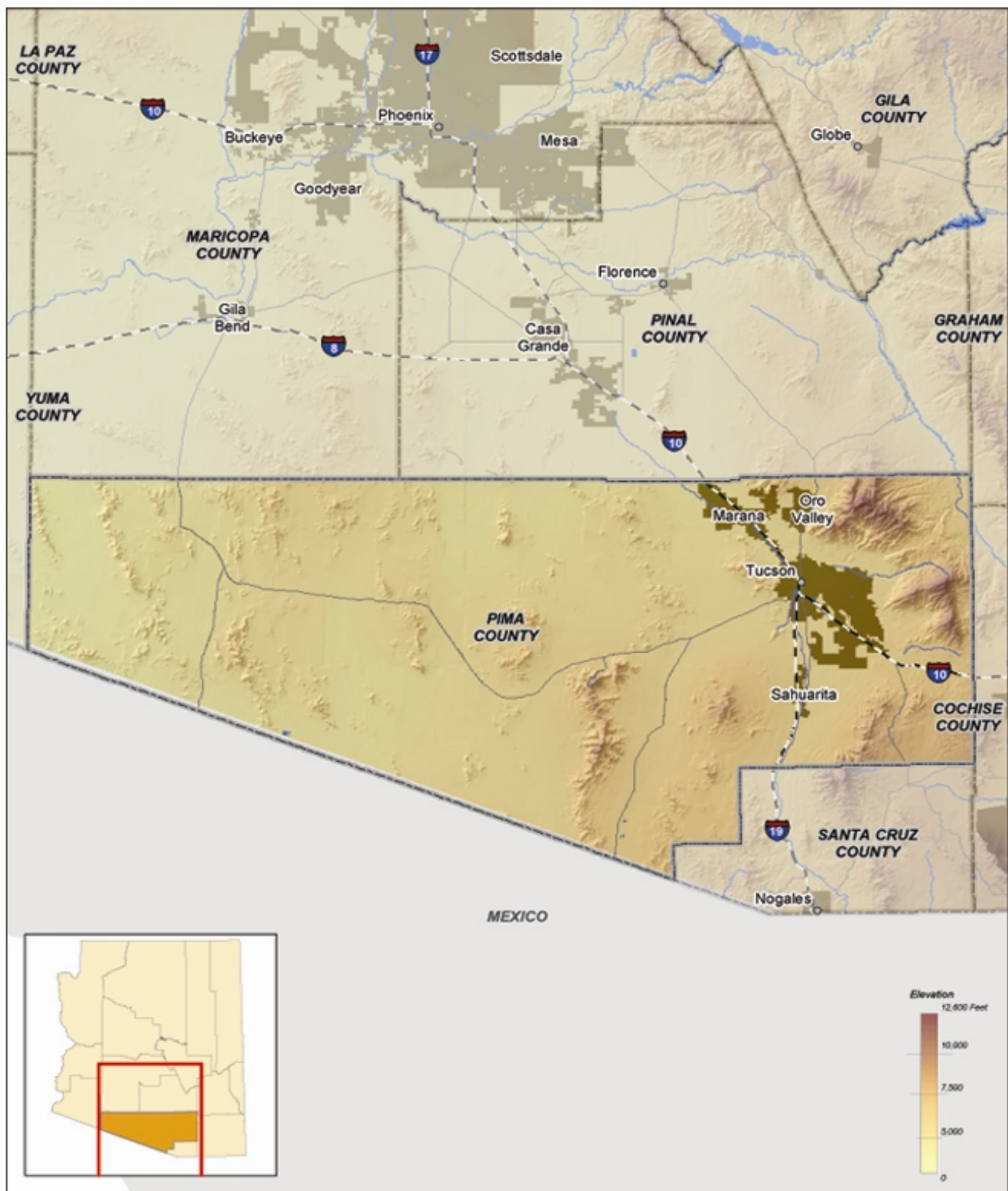
Through development of this Plan, the need to significantly refine the goals/objectives and actions/projects in our original Plan was evident. We believe this need is a result of the determination to focus the Plan more on natural caused hazards as other hazards are covered in their appropriate plans (i.e. health, terrorism, etc.). There is also much to be said about the increased amount of information available regarding hazard mitigation planning.

To encourage our jurisdictions to re-evaluate their Plan's Mitigation Strategy as well, each County was asked to indicate their action/project progress since the development of their Plan. The County did not indicate any progress at this time.

Other Planning Mechanisms

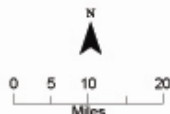
During their planning process, the County staff reviewed and evaluated their resources and capabilities in the areas of Existing Plans, Policies and Ordinances; Technical Staff/Resources and Financial Resources. Although all resources are important to a community's ability to mitigate the effects of natural and human-caused hazards, we elected to ask the County to complete a survey indicating their legal and regulatory resources to be included in the Plan. We are pleased to receive feedback that reflects awareness of the need for regulations and guidelines that may have an effect on loss reduction. We believe such resources and capabilities can play a critical part in developing and maintaining a more disaster resistant community. The information below was provided by the County in June 2007:

	Yes or	Approval	Responsible	
Plan/Policy/Ordinance	No	Date	Authority	Plan Use/Comments
Building Code	Y	2006	County	Bldg & related codes. Internat'l Code.
Zoning Ordinance	Y	Orig "53	County	Planning/Zoning. Updated frequently.
Subdivision Ordinance or Regulations	N/A	N/A	County	Subdivision regulations.
Growth Management Ordinance	N	N/A	N/A	See Comprehensive Plan
Site Plan Review Requirements	Y	N/A	County	Zoning Ordinance
General or Comprehensive Plan	Y	N/A	County	Land use, transportation, water & open spaces.
Capital Improvement Plan	Y	N/A	County	N/A
Economic Development Plan	Y	N/A	County	Community resources.
Emergency Response Plan	Y	2006	County	Being updated.
Post-Disaster Recovery Plan	Y	2006	N/A	Annex to ERP.
Real Estate Disclosure Statement	Y	Annually	County	DOT/Environmental Compliance. Based on state regulations.
Source: Survey from ADEM to County Emergency Managers, 2007.				



LEGEND

- Interstate
- Highway
- City
- Major Stream
- County
- Lake
- County Seat



State of Arizona
Multi-Hazard Mitigation Plan

Map 13 Major Features of Pima County